



DII COE

6 Month Plan Update (June 00)

Mr. Doug Gardner
Defense Information Systems
Agency
DII COE Engineering Office
21 June 2000



Purpose of Plan Update

- **Respond to CRCB direction for six-month updates**
- **Obtain CRCB decision for COE version 4.5**
- **Discuss draft COE version 5.x schedule**



Plan Considerations

- **COE Products**
 - **Integration and Runtime Specification**
 - **Integrated C4I System Framework (ICSF)**
 - **Kernel**
- **Contributing Factors**
 - **Service C4I System Fielding Schedules**
 - **Technology Introduction/Refresh**
 - **Operating System Re-versioning**
 - **Non-C4I Customers**
 - **Real-Time Customers**
 - **DISA Contract Strategy**



Assumptions

- **Resources fixed**
- **Security considered throughout**
- **Other COE GOTS products will generally follow ICSF for schedule and technology introduction/refresh**
 - **Alerts**
 - **Messaging**
 - **Collaboration Tools**
 - **JMTK (Analysis, SDBM, and Utilities)**
 - **Etc.**



Service C4I System Fielding Schedules

(As of December 1999)



GCCS (DISA)

Kernel 4.x, NT Client,
Oracle, etc.



ICSF 4.x



GCCS-M (Navy)

Solaris Hardware



Kernel 4.x, ICSF 4.x



TBMCS (Air Force)

Kernel 4.x, ICSF 4.x



ABCS (Army)

Kernel 4.x and JMTK



ICSF 4.x (TBD)

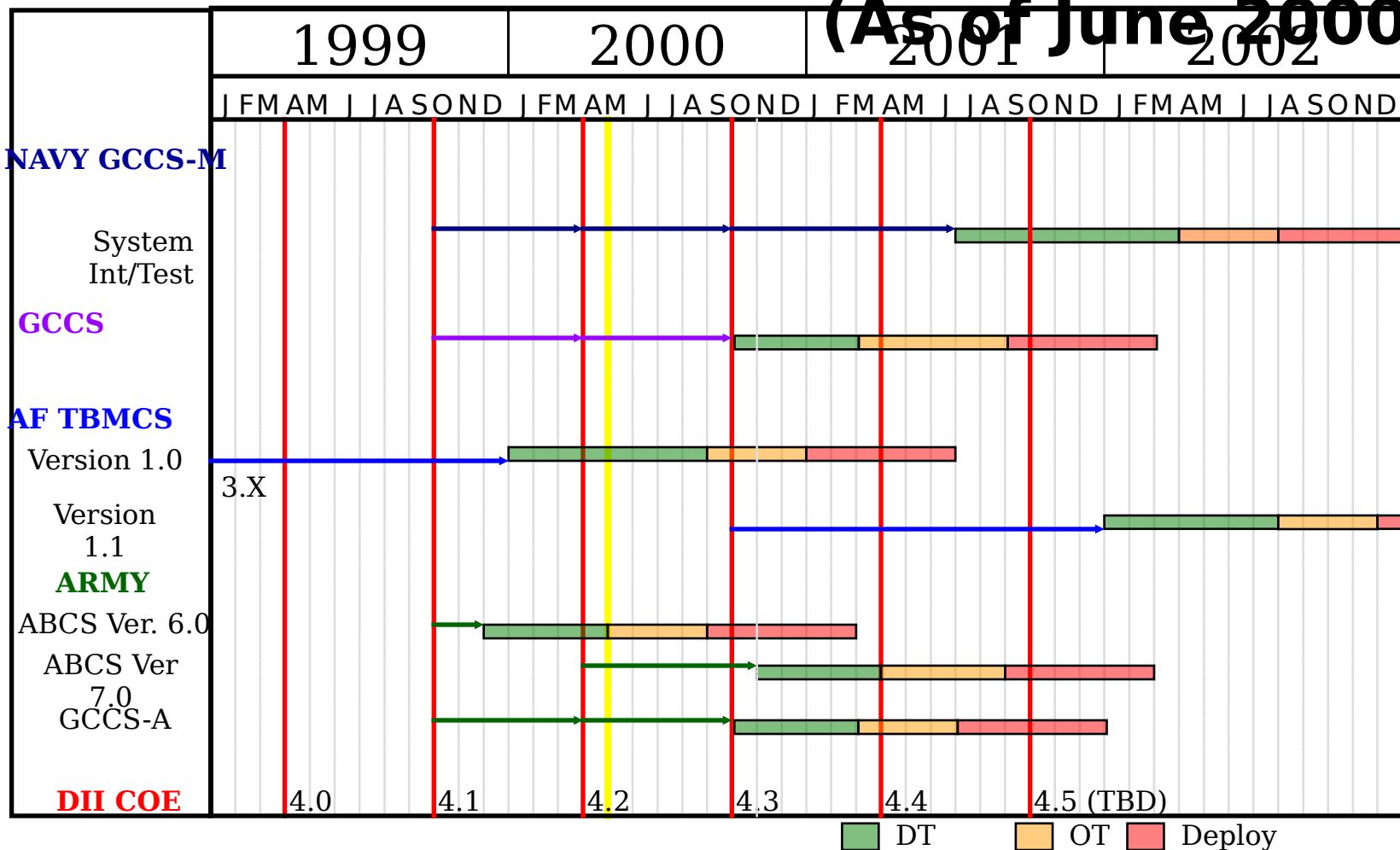
DT
OT
Fielding

COE V4.1 V4.2 V4.3 V4.4 V5.0 V5.1 V5.2



Service C4I System Fielding Schedules

(As of June 2000)

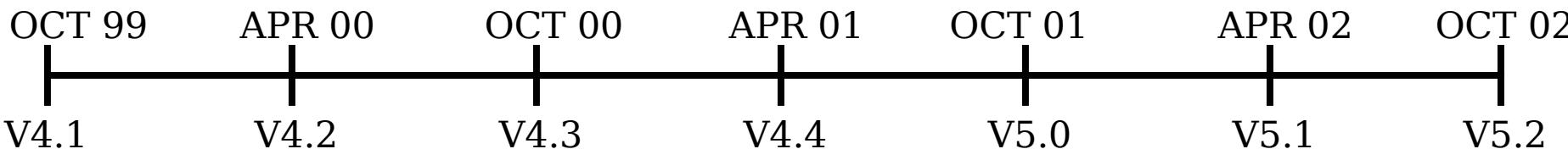


NOTE: This is for Planning
Purpose Only

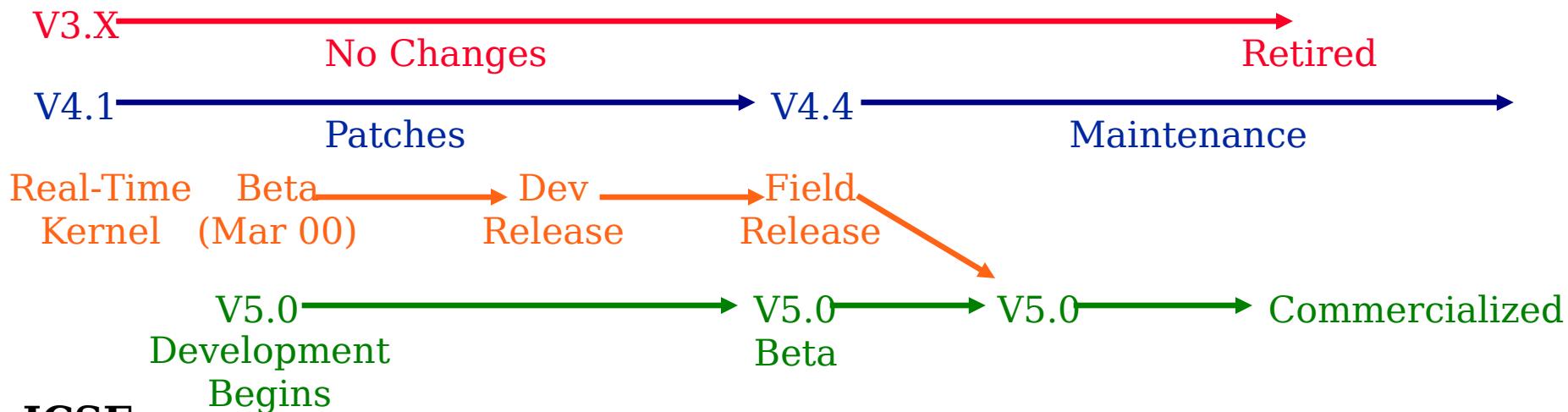


COE Delivery Plan

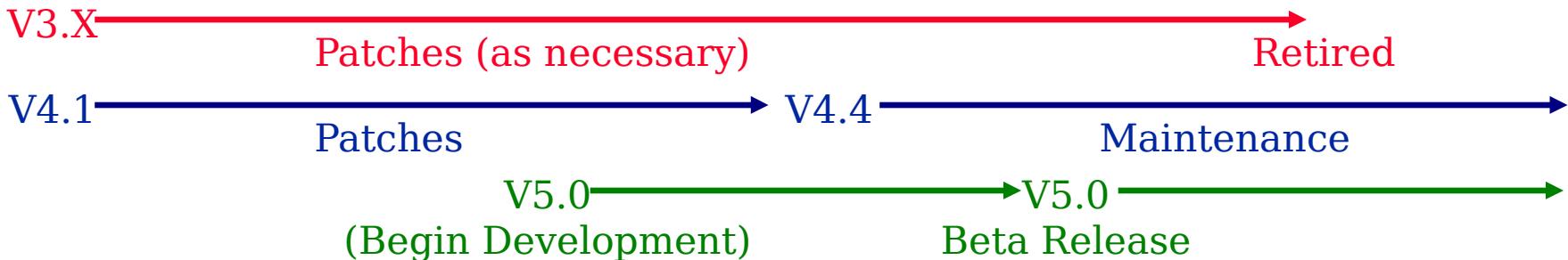
(As of December 1999)



KERNEL



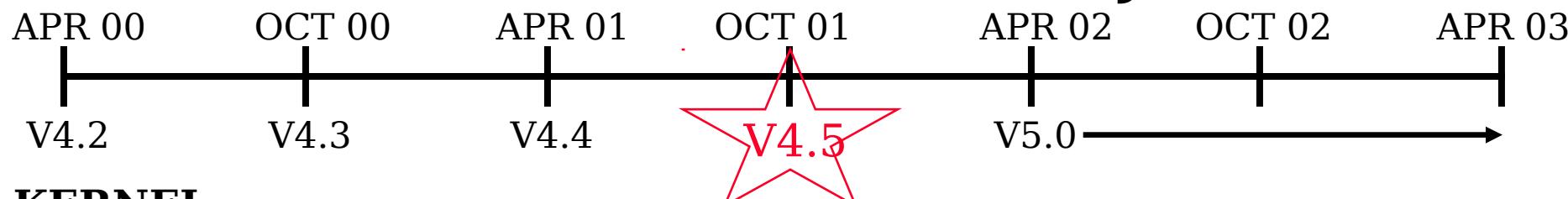
ICSF



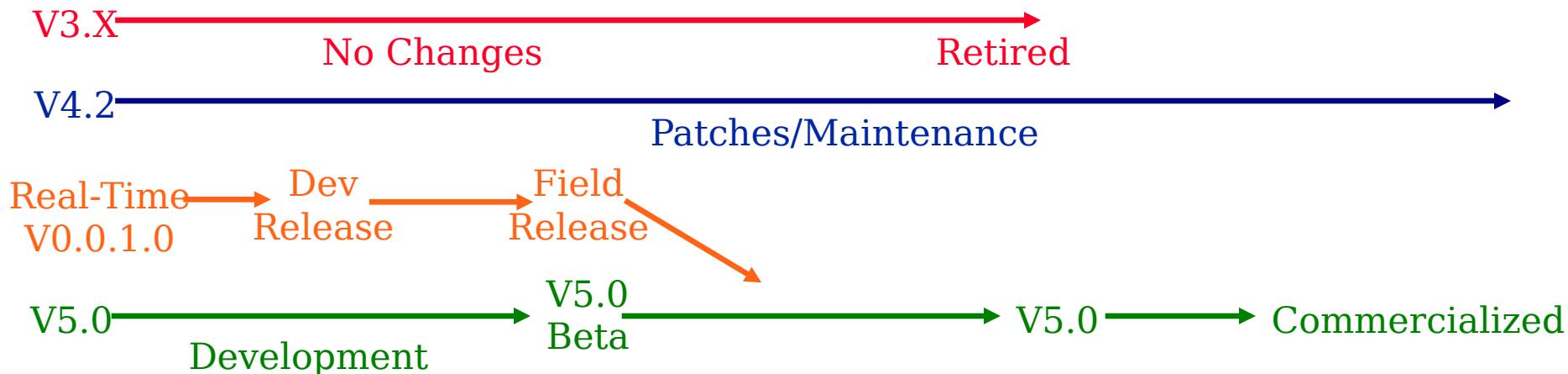


COE Delivery Plan

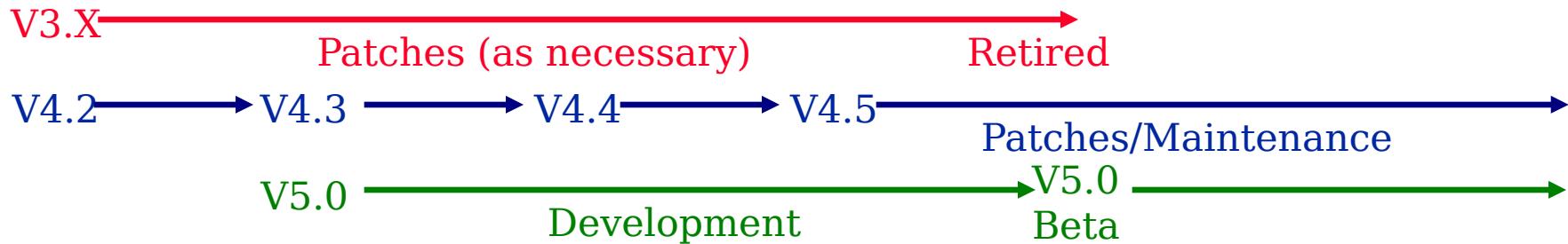
~~(As of June 2000)~~



KERNEL



ICSF





Version 4.2 -- April 2000

- **I&RTS**
 - **Version 4.0 (October 1999)**
- **Kernel**
 - **Kernel Version 3.x patches completed**
 - **Version 4.2 = Version 4.1 with rolled-up patches**
 - **HP 10.20, Solaris 7, Windows NT with Service Packs + KPC**
 - **Solaris 8, HP 11, and Windows 2000 not available in time**
 - **Beta Real-time Kernel delivered April 2000**
 - **Java Community Process for Installer in progress**
- **ICSF**
 - **Patches for Version 3.x (as necessary)**
 - **Version 4.2**
 - **COP client functionality in progress**
 - **Java GUIs on NT and Solaris (no ICSF client on HP 10.20)**
 - **Solaris server only (no ICSF server on HP 10.20)**



Version 4.3 -- October 2000

- **I&RTS**
 - **Version 4.0 (October 1999)**
- **Kernel**
 - **Patches for Version 4.2 (as necessary)**
 - **HP**
 - **HP 10.20 and HP 11 supported**
 - **Sun Solaris**
 - **Solaris 7 and Solaris 8 supported**
 - **Windows**
 - **NT 4 w/Service Packs supported**
 - **Windows 2000 Professional (client) supported**
 - **Kernel Platform Compliance (KPC) compliant O/S's**
 - **Developer's Release Real-time Kernel (separate from 4.x Kernel)**
 - **Java Community Process for Installer in progress**



Version 4.3 -- October 2000

(Continued)

- **ICSF**
 - **Patches for version 3.x (as necessary)**
 - **Version 4.3**
 - **Requires development systems to recompile for last time**
 - **Driven by move to Visual C++ 6.0, Java 2**
 - **Patch cycle begins - no recompiling required**
 - **Solaris 7/8 and HP 11 Servers**
 - **Java Clients (NT 4, Solaris 7/8, HP11)**
 - **Limited new functionality**



Version 4.4 -- April 2001

- **I&RTS**
 - **Version 4.0 (October 1999)**
 - **Version 5.0 Draft available April 2001**
 - Installer guidelines handled through Java Community Process
 - Kernel services addressed through commercialization
- **Kernel**
 - **Patches for Version 4.2 (as necessary)**
 - HP 11, Solaris 7 and 8, NT 4, Windows 2000 Professional + Servers (TBD), + KPC
 - Retire HP 10.20?
 - Need to support any new Operating System versions?
 - **“Field-able” Real-time Kernel (separate from 4.x Kernel)**
- **ICSF**
 - **Patches for Version 3.x (as necessary)**
 - **Patches for Version 4.3 (as necessary)**
 - Stability, Reliability, and Performance are Primary Goals
 - Solaris 7/8 and HP 11 Servers
 - Java Clients (NT 4, Windows 2000, Solaris 7/8, HP11)



Proposed Version 4.5 -- October 2001

- Navy and Army have requested a 4.5 based on fielding schedules
- Content
 - For now, 4.5 is a placeholder for resources relative to 5.x development
- Schedule
 - ICSF 4.x system fielding range: Summer 2001 through Late 2002
 - Adding a 4.5 avoids providing the next version before the current version is fielded
 - Allows maximum transition to new development contract vehicle
- Stability and Focus
 - Extra 4.x delivery minimizes resource conflicts between 4.x support and 5.x development during the initial fielding of 4.x-based systems
- Technology
 - Earliest 5.x system fielding in 2003 (or later?)
 - Stretching 5.x schedule avoids two “technology cycles” (three years) between development and fielding



Version 4.5 -- October 2001

- **I&RTS**
 - **Version 4.0 (October 1999)**
 - **Version 5.0 Final available May 2001**
 - Installer guidelines handled through Java Community Process
 - Kernel services addressed through commercialization
- **Kernel**
 - **Patches for Version 4.2 (as necessary)**
 - HP 11, Solaris 7 and 8, NT 4, Windows 2000, + KPC
 - Retire HP 10.20?
 - Need to support any new Operating System versions?
 - **“Field-able” Real-time Kernel (separate from 4.x Kernel)**
 - **Java Installer specification and reference implementation**
- **ICSF**
 - **Patches for version 3.x (as necessary)**
 - **Patches for Version 4.4 (as necessary)**
 - **For now, Version 4.5 is a placeholder for resources**



DRAFT COE Version 5.0

- **Drivers for rethinking COE 5.0 delivery cycle**
 - CRCB asked why a six-month cycle is assumed
 - Services gave COE office feedback on benefits and drawbacks of current six-month cycle
 - C4I system fielding schedules moved to right



DRAFT

COE Version 5.0

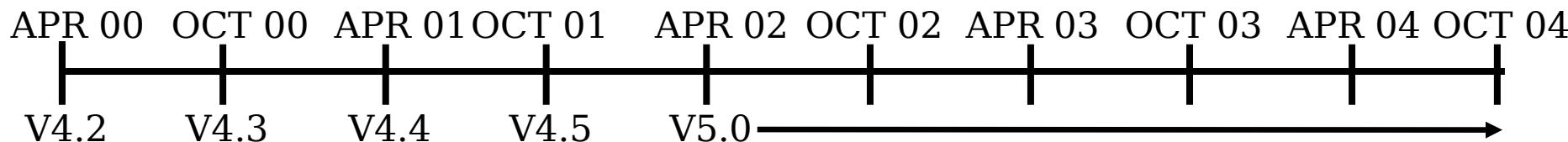
~~(Continued)~~

- **Proposal**

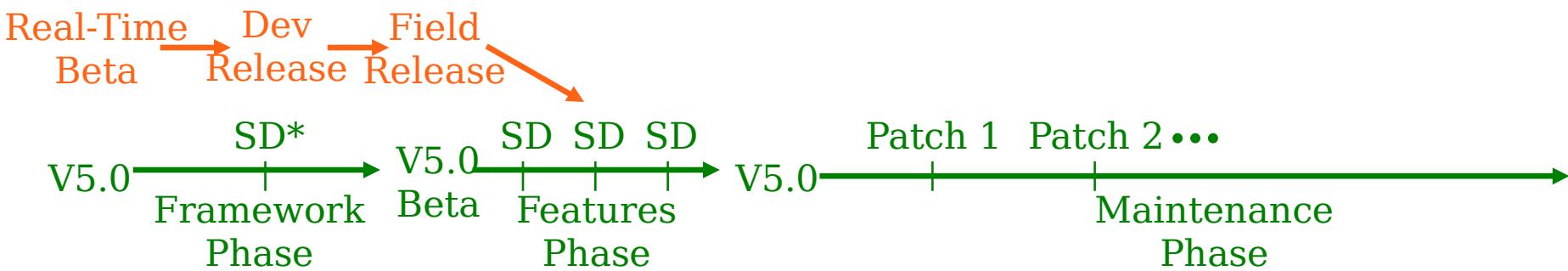
- **For Kernel and ICSF, develop three-phase schedules**
 - **Framework Phase (produces APIs required by developers)**
 - **Synchronization Drops every six months**
 - **Features Phase (builds end-user features on framework)**
 - **Synchronization Drops every three months**
 - **Maintenance Phase (produces patches as necessary)**
 - **Patch cycle every six months until systems closer to fielding, then more frequent**
- **Hold version numbers at 5.0 and patch as necessary**
 - **Commercial model (e.g., NT 4, SP6a)**
 - **Once an application is tested against 5.0, it will continue to run on all subsequent patches**
 - **Emphasizes the completeness and stability of the 5.0 baseline**



DRAFT COE 5.0 Delivery Plan



KERNEL



ICSF



*SD = Synchronization Drop